

What is claimed is:

1. A carbon nanotube dispersion liquid, comprising a carbon nanotube modified with a basic or acidic functional group, which is dispersed in a polar solvent having a polarity opposite to a polarity of the functional group.

2. A carbon nanotube dispersion liquid according to claim 1, wherein the carbon nanotube dispersion liquid is in such a dispersion state that, when the liquid is rested for 1 hour at room temperature, a precipitating surface is 20% or less of an upper portion of the carbon nanotube dispersion liquid without developing a sedimentary surface.

3. A method of producing a carbon nanotube dispersion liquid, comprising: adding, through introduction, a basic or acidic functional group to a carbon nanotube; and dispersing the carbon nanotube into a polar solvent having a polarity opposite to a polarity of the functional group.

4. A method of producing a carbon nanotube dispersion liquid according to claim 3, wherein the carbon nanotube dispersion liquid is in such a dispersion state that, when the carbon nanotube dispersion liquid is rested for 1 hour at room temperature after the dispersing, a precipitating surface is 20% or less of an upper portion of the

carbon nanotube dispersion liquid without developing a sedimentary surface.

5. A polymer composite, which is obtained by volatilizing at least the polar solvent from a mixture solution containing at least a polymer in the carbon nanotube dispersion liquid according to claim 1.

6. A method for producing a polymer composite, comprising:
preparing a mixture solution by mixing a polymer solution obtained by dissolving a polymer in a second solvent and the carbon nanotube dispersion liquid according to claim 1; and
volatilizing the polar solvent and the second solvent from the mixture solution.

7. A method for producing a polymer composite according to claim 6, further comprising preparing the polymer solution by dissolving the polymer in the second solvent prior to preparing the mixture solution.

8. A method for producing a polymer composite according to claim 6, wherein the polar solvent and the polymer solution are compatible with each other.

9. A method for producing a polymer composite according to claim 6, wherein the polar solvent and the second solvent are the same solvent.